



Serial No.: 10/075,747

Applicants: GROWCOCK *et al.*

Reply to Final Office Action of May 19, 2004

Atty. Ref.: 11836.0703.NPUS00

PA-00108

**REMARKS:****REMARKS REGARDING CLAIMS AMENDMENTS:**

The above noted amendments to the claims have been made so that the scope and language of the claims is more precise and clear in defining what the Applicants consider to be the invention. Support for the above amendments to the claims can be found in the original specification as filed.

The claims and amended claims are submitted as being clearly distinct and patentable over the art of record and therefore their entry and allowance by the Examiner is requested.



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**IN RESPONSE TO THE OFFICE ACTION:**

**Claim Rejections Under 35 U.S.C. § 112:**

In response to the rejection of claims 53, 54, 55 and 61 Applicants have amended each accordingly to adopt the Examiner's suggestion regarding the Markush Group language.

In response to the rejections of claims 52-57 and 60-65, Applicants have amended independent claim 52 so as to clarify the language of the claim by use of colons and semi-colons to distinguish the components of the vermiculture composition as being: a plurality of worms; oil contaminated solids; a bulking agent; a compostable nitrogen source; a non-oleaginous phase; and an emulsifying agent. The claim has also been amended so as to recite that the oil-contaminated solids include a solid material with an oleaginous phase substantially composed of linear paraffin.

Similar to claim 52, independent claim 60 has been amended so as to clarify the language of the claim by using colons and semi-colons to distinguish the components of the vermiculture composition as being: a plurality of worms; oil contaminated solids; a bulking agent; and, a compostable nitrogen source. The claim has also been amended so as to recite that the oil contaminated solids include a solid material and an oleaginous phase substantially composed of linear paraffin, a non-oleaginous phase and an emulsifying agent.

With regard to claim 63, this dependent claims has been amended so as to make clear that the non-oleaginous phase includes a non-oleaginous fluid and a biodegradable anion.

Claim 64 has been amended in a similar manner as claims 52 and 60 noted above to clarify the language of the claims by using a colon and semi-colons to distinguish the components of the oil contaminated solids.

Therefore, Applicants submit that the Examiner's rejections under 35 U.S.C. §112 have been addressed fully and respectfully request that the Examiner withdraw such rejections and issue a notice of allowance in the next paper from the Office.



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### Claim Rejections Under 35 U.S.C. § 103:

Claims 52-57 and 59-65 have been rejected under 35 U.S.C. §103(a) as being unpatentable given U.S. Patent No. 6,187,581 of Paul Sicotte et al. (Sicotte et al. reference) in view of U.S. Patent No. 6,548,294 of Russell Anthony Ritter et al. (Ritter et al. reference).

Applicants request that the Examiner reconsider and withdraw the above rejection of the claims in view of the following.

A determination under 35 U.S.C. §103 is whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. *In re Mayne*, 104 F.3d 1339, 1341, 41 U.S.P.Q. 2d 1451, 1453 (Fed. Cir. 1997). An obviousness determination is based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 U.S.P.Q. 459, 467 (1966), see also *Robotic Vision Sys., Inc. v. View Eng'g Inc.*, 189 F.3d 1370, 1376, 51 U.S.P.Q. 2d 1948, 1953 (Fed. Cir. 1999).

In line with this standard, case law provides that "the consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art." *In re Dow Chem.*, 837 F.2d 469, 473, 5 U.S.P.Q. 2d 1529, 1531 (Fed. Cir. 1988). The first requirement is that a showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." *C.R. Bard, Inc. v. M3 Sys. Inc.*, 157 F.3d 1340, 1352, 48 U.S.P.Q. 2d 1225, 1232 (Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." *In re Dembiczaik*, 175 F.3d 994, 1000, 50 U.S.P.Q.2d 1614, 1617.

The second requirement is that the ultimate determination of obviousness must be based on a reasonable expectation of success. *In re O'Farrell*, 853 F.2d 894, 903-904, 7 U.S.P.Q. 2d 1673, 1681 (Fed. Cir. 1988); see also *In re Longi*, 759 F.2d 887, 897, 225 U.S.P.Q. 645, 651-52



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(Fed. Cir. 1985). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 972 F.2d 1260, 1265, 23 U.S.P.Q. 2d 1780, 1783–84 (Fed. Cir. 1992).

The Examiner bears the burden of establishing a prima facie case of obviousness. *In re Deuel*, 51 F.3d 1552, 1557, 34 U.S.P.Q. 2d 1210, 1214 (Fed. Cir. 1995). The burden to rebut a rejection of obviousness does not arise until a prima facie case has been established. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q. 2d 1955, 1957 (Fed. Cir. 1993). Only if the burden of establishing a prima facie case is met does the burden of coming forward with rebuttal argument or evidence shift to the applicant. *In re Deuel*, 51 F.3d 1552, 1553, 34 U.S.P.Q. 2d 1210, 1214 (Fed. Cir. 1995), see also *Ex parte Obukowicz*, 27 U.S.P.Q. 2d 1063, 1065 (B.P.A.I. 1992).

The Sicotte et al. reference discloses a process and composition for treating hydrocarbon contaminated material based on the use of microbial cultures capable of metabolizing the hydrocarbon contaminates. See Abstract and Col. 3, lines 15-19; lines 33-37; and independent claims 1 and 7. The use of genetically modified bacteria or naturally occurring hydrocarbon tolerant bacteria to degrade hydrocarbons (particularly crude oil) is well known in the art. In fact the Sicotte et al. reference indicates that such is true. (Col. 1, lines 61-67) Equally well known in the art is that oil contamination is considered deleterious to macroscopic life. Again the Sicotte et al. reference indicates that such is true. Col. 1, lines 14-17.

Nothing in the Sicotte et al. reference teaches or suggests the inclusion of macroscopic life forms, such as earthworms, as the bioremediating agent for oil contaminated solids. As noted above, Sicotte et al. teaches exactly the opposite. Further nothing in the Sicotte et al. reference teaches or suggests the conditions or mixtures and compositions to carry out the effective vermicomposting of oil contaminated solids, such as drill cuttings, drilling mud, contaminated soil and the like.

The Ritter et al. reference is generally directed to a device and methods for enlarging the scale at which vermicomposting can take place. As generally disclosed, vermicomposting can be used to degrade a wide range of organic materials including sewage sludge.



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Given the well known deleterious effect of oil contaminated solids to macroscopic life forms, one of skill in the art would not be motivated to combine the teachings of the Sicotte et al. reference and the Ritter et al. reference as suggested by the Examiner. In fact, Applicants have presented in the Examples that diesel and ester contaminated solids have a deleterious effect on earthworms. (Page 19, Table 2). As is also shown in Table 2, when the base fluid contains an oleaginous liquid substantially composed of a paraffin and more preferably a linear paraffin—the toxicity mitigated. Nothing in either the Sicotte et al. reference or the Ritter et al. reference teaches or suggests that such a result is achievable, specifically neither reference teaches or suggests the use of linear paraffin. Therefore there is no reasonable expectation of success given the combination of the Sicotte et al. reference and the Ritter et al. reference. As noted above, the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 972 F.2d 1260, 1265, 23 U.S.P.Q. 2d 1780, 1783–84 (Fed. Cir. 1992). Neither reference contains any suggestion nor teaches one to successfully use macroscopic life forms in vermicomposting of oil contaminated solids.

Given the above, Applicants request that the rejection of claims 52-57 and 59-65 under 35 U.S.C. §103(a) be reconsidered and withdrawn and that the Examiner indicate the allowance of the claims in the next paper from the Office.

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The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application.

The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 01-2508, referencing Order No. 11836.0703.NPUS00.

In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner should directly contact the undersigned by phone to further the discussion.



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Respectfully submitted,

A handwritten signature in black ink that appears to read "Michelle C. Replegole".

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Date:

A handwritten date in black ink that appears to read "July 19, 2004".